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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,808	12/24/2003	Seizo Suzuki	246830US2	1720
22850	7590	11/29/2005		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER CHERRY, EUNCHA P	
			ART UNIT 2872	PAPER NUMBER

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/743,808

Applicant(s)

SUZUKI, SEIZO

Examiner

EUNCHA P. CHERRY

Art Unit

2872



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2 and 4-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US 5,838,479) in view of Wang et al (6,292,285 B1).

Shiraishi discloses an optical scanner (Figs. 1 and 2) that scans a surface of each of a plurality of latent image carriers with a corresponding light beam, comprising: a optical deflection unit that is rotatable and that deflects and reflects light beams, the optical deflection unit having two or more surfaces, along an axis of rotation of optical deflection unit, that deflect and reflect the light beams in different directions (5 and also see Fig. 2 LB, LC, LY and LM), a lens that takes-in the light beams reflected from the optical deflection unit and divides the light beams into number of light beams equal to

Art Unit: 2872

number of the image carrier (see Fig. 7, 25 and Fig. 8A), and a bending optical system corresponding to each image carrier (33s and 35s in Fig. 2), the bending optical system guides the light beam output from the lens onto a surface of a corresponding one of the image carriers (Fig. 2, P), wherein the light beams entering into the optical deflection unit include at least one orthogonal beam that is orthogonal to the axis of rotation of the optical deflection unit (see LC and LM), and at least one oblique beam that is oblique to a plane that is orthogonal to the axis of rotation of the optical deflection unit (see LB and LY). The lens is a multi-tier lens obtained by stacking a plurality of lenses in a direction parallel to the axis of rotation of the optical deflection unit (see 25 in Fig. 8A), wherein the bending optical system that is nearest to the lens includes a mirror that takes-in all the light beams output from the lens, reflects a light beam corresponding to the bending optical system that is nearest to the lens and that is transparent to remaining light beams (33s). Each bending optical system includes a lens that is mounted so as to be eccentric by shifting or tilting in a vertical scanning direction (see the shape of 25 in Fig. 8A). The four latent image carriers are provided corresponding to magenta, cyan, yellow and black (see column 3, line 51).

Art Unit: 2872

However, the deflector of Shiraishi is not a two-stage optical deflection unit. Wang et al discloses a two-stage optical deflection unit (Fig. 1, 102) comprising two polygonal mirrors separated from each other along the axis of rotation (see Fig. 2). It would have been obvious to one of ordinary skill in the art to use the two-stage deflection unit as taught by Wang et al for the purpose of guiding multiple scanning beams to multiple photoreceptors in a scanning system, which resulting in reduction of manufacturing costs by using common optical elements.

#### ***Allowable Subject Matter***

3. Claim 3 is allowable.
4. The following is a statement of reasons for the indication of allowable subject matter: claim is allowable at least for the reason that the prior art does not teach or reasonably suggest the oblique beam that satisfies the conditional equation as set forth in the claimed combination.

#### ***Response to Arguments***

5. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

Art Unit: 2872

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

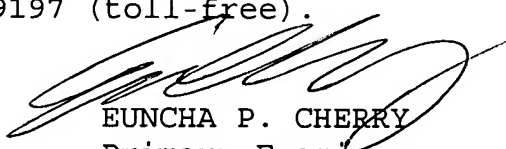
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EUNCHA P. CHERRY whose telephone number is 571-272-2310. The examiner can normally be reached on M-F 6:30-4:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DREW DUNN can be reached on 571-272-2312. The fax phone number for the

Art Unit: 2872

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



EUNCHA P. CHERRY  
Primary Examiner  
Art Unit 2872